

20010805.qrp v02_n272.qrl.20010805

Date: Sun, 5 Aug 2001 19:03:14 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 2272

QRP-L Digest 2272

Topics covered in this issue include:

- 1) [104232] Re: 80 meter QRPp CW beacon / propagation study
by "W3CDE Jerry L." <w3cde@bellsouth.net>
- 2) [104233] Re: Apartment antenna ideas?
by John Harper AE5X <ae5x@qsl.net>
- 3) [104234] RBA-1 Balun
by "Karl F. Larsen" <k5di@zianet.com>
- 4) [104235] Re: Apartment antenna ideas?
by Bruce Muscolino <w6toy@erols.com>
- 5) [104236] Re: Apartment antenna ideas?
by lhlousek <lhlousek@nvhbell.net>
- 6) [104237] Re: RBA-1 Balun
by "Rob Matherly" <kc0bom@yahoo.com>
- 7) [104238] Re: RBA-1 Balun
by "Rob Matherly" <kc0bom@yahoo.com>
- 8) [104239] Moving. Here is tip of the iceberg.
by wb4mnf@atl.org
- 9) [104240] Re: RBA-1 Balun
by Phil Wheeler <w7ox@earthlink.net>
- 10) [104241] Re: 80 meter QRPp CW beacon / propagation study
by Joe Reed <joe@n9jr.dyndns.org>
- 11) [104242] Re: 80 meter QRPp CW beacon / propagation study
by "W3CDE Jerry L." <w3cde@bellsouth.net>
- 12) [104243] Re: 80 meter QRPp CW beacon / propagation study
by Joe Reed <joe@n9jr.dyndns.org>
- 13) [104244] Re: Antenna feed line length?
by Lourette <lourette@localnet.com>
- 14) [104245] Re: RBA-1 Balun
by "Rob Matherly" <kc0bom@yahoo.com>
- 15) [104246] Re: RBA-1 Balun
by "George, W5YR" <w5yr@att.net>
- 16) [104247] Re: RBA-1 Balun
by Phil Wheeler <w7ox@earthlink.net>
- 17) [104248] Re: RBA-1 Balun
by "Leon Heller" <leon_heller@hotmail.com>
- 18) [104249] Direct-coupled feedback pair amplifier
by "Leon Heller" <leon_heller@hotmail.com>
- 19) [104250] Re: RBA-1 Balun

- by Phil Wheeler <w7ox@earthlink.net>
- 20) [104251] Re: RBA-1 Balun
by "Karl F. Larsen" <k5di@zianet.com>
- 21) [104252] Re: RBA-1 Balun
by "Karl F. Larsen" <k5di@zianet.com>
- 22) [104253] Re: RBA-1 Balun
by Bruce Muscolino <w6toy@erols.com>
- 23) [104254] RE: Poqet
by John Payne <paynej1@strato.net>
- 24) [104255] LPFs, toroids & software gambits
by nilsbull@juno.com
- 25) [104256] Power Management Contest - Results WD3P
by Larry Cahoon <lejek@erols.com>
- 26) [104257] 17mtr DSB: AF amp cramps
by Bill Meara <n2cqr@clix.pt>
- 27) [104258] Re: Direct-coupled feedback pair amplifier
by "Chris Trask" <ctrask@qwest.net>
- 28) [104259] RE: RBA-1 Balun
by Nick Kennedy <nkennedy@tcainternet.com>
- 29) [104260] RE: LPFs, toroids & software gambits
by Nick Kennedy <nkennedy@tcainternet.com>
- 30) [104261] RE: Direct-coupled feedback pair amplifier
by Nick Kennedy <nkennedy@tcainternet.com>
- 31) [104262] Re: Slash Zero
by "Walt Amos" <k8cv@netzero.net>
- 32) [104263] Fw: Apartment antenna ideas?
by "Walt Amos" <k8cv@netzero.net>
- 33) [104264] Extra Parts
by Ken Brown <n4so@juno.com>
- 34) [104265] WWV time and conditions
by "Karl F. Larsen" <k5di@zianet.com>
- 35) [104266] Re: Fw: Apartment antenna ideas?
by Bruce Muscolino <w6toy@erols.com>
- 36) [104267] RE: WWV time and conditions
by Nick Kennedy <nkennedy@tcainternet.com>
- 37) [104268] RE: WWV time and conditions survey URL
by "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>
- 38) [104269] Re: WWV time and conditions
by Phil Wheeler <w7ox@earthlink.net>
- 39) [104270] Re: RBA-1 Balun
by N0tk@aol.com
- 40) [104271] 17mtr DSB: URL for site
by Bill Meara <n2cqr@clix.pt>
- 41) [104272] Re: RBA-1 Balun
by lhlousek <lhlousek@nvhbell.net>
- 42) [104273] Re: RBA-1 Balun
by Phil Wheeler <w7ox@earthlink.net>
- 43) [104274] Slightly OT: Must I use an electrolytic?

- by "Tom Bowman" <tbowman@nbn.net>
- 44) [104275] Local sources for magnet wire
by lhlousek <lhlousek@nvhbell.net>
- 45) [104276] It's time for a DX cub fox hunt
by "Juanjo Pastor" <ec5aca@wanadoo.es>
- 46) [104277] TEK465 Part
by K4BYF@aol.com
- 47) [104278] Re: TEK465 Part
by KB7WW Art Moe <kb7ww@uswest.net>
- 48) [104279] For sale
by "Steve Hudson" <sdhudson@cahners.com>
- 49) [104280] Re: RBA-1 Balun
by Stephan Greene <sgreene@patriot.net>
- 50) [104281] Re: WWV time and conditions
by "Bill, N4QA" <n4qa@hotmail.com>
- 51) [104282] Re: RBA-1 Balun
by Phil Wheeler <w7ox@earthlink.net>
- 52) [104283] OT FS Dipole
by ac5ez@webtv.net (Larry)
- 53) [104284] Fwd: ARLB030 Hurricane Watch Net Activates As Barry Approaches
Gulf Coast
by Pete Burbank <plburbank@kih.net>
- 54) [104285] Re: TEK465 Part
by Pete Burbank <plburbank@kih.net>
- 55) [104286] cub fox KB9YIG for 8/7/01
by "Tony Parks" <robert.parks11@gte.net>
- 56) [104287] Re: 17mtr DSB: AF amp cramps
by Dan Tayloe <dtayloe@home.com>
- 57) [104288] WWV survey
by Ray Sills <raysills@1stconnect.com>
- 58) [104289] re: Summer Daze QRP...
by "N7SG K7FD" <k7fd@hotmail.com>

Date: Sat, 04 Aug 2001 19:05:49 -0400
From: "W3CDE Jerry L." <w3cde@bellsouth.net>
To: n4qa@hotmail.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104232] Re: 80 meter QRPP CW beacon / propagation study
Message-ID: <3B6C7FCD.31F205AB@bellsouth.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Personally, I would move it down in frequency...

Jerry

W3CDE

"Bill, N4QA" wrote:

>
> ahem...
>
> Phil is right !
>
> Ok, ok, EVERYONE who follows the directions in the beacon text will receive
> an attaboy/attagirl, posted to QRP-L !
>
> Since the beacon *MAY* run all the way through next winter(24-7), everyone
> should get a 'chance' :)
>
> 73.
> Bill, N4QA
>
> >From: Phil Wheeler <w7ox@earthlink.net>
> >To: n4qa@hotmail.com
> >CC: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> >Subject: Re: 80 meter QRPP CW beacon / propagation study
> >Date: Sat, 04 Aug 2001 15:08:26 -0700
> >
> >
> >
> >"Bill, N4QA" wrote:
> > >
> > > Hi, gang.
> > >
> > > I'm running a fifty milliwatt (as measured at the rig's output) CW
> >beacon
> > > near 3579.9 kHz.
> > >
> > > First person to post the entire text of this beacon to QRP-L wins one
> > > attaboy / attagirl, as the case may be.
> >
> >Well .. kinda discriminating against us Left Coast guys; only 1508 PDT
> >here :-;
> >
> >Phil
>
>
> -----
> Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sat, 04 Aug 2001 17:00:31 -0400

From: John Harper AE5X <ae5x@qsl.net>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [104233] Re: Apartment antenna ideas?
Message-ID: <000301c11d28\$7fd44680\$5b7abc18@johnharp>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Hello Scott,

I've operated from numerous hotels while at a previous job and have tried every combination of "apartment/hotel dweller's" antenna out there. This is the antenna that's given me the best and most consistent results:

Pick the lowest band you intend to use, usually 40m for me. Cut a 1/4 wavelength of #26 magnet wire and drop it out your window, tying it off to a point as far from the building as possible. For tie-offs, I've used parking signs, bushes, etc. Then go back upstairs and run another 1/4 wavelength (ground radial) of wire across the apartment. Both the radial and the radiating portion are practically invisible. Bring them both to your tuner and start working DX. With 2 watts from my DSW20, I've worked Fiji, KH6, JA and VK from a 3rd floor hotel in Dallas using this antenna.

Major point: The main lobe of radiation with this antenna (when used at it's fundamental freq) occurs at the feedpoint so make sure your tuner is located near the window that the wire dangles from.

John Harper AE5X
Outdoor QRP & Lowband DXing: <http://www.qsl.net/ae5x>

Date: Sat, 4 Aug 2001 17:56:43 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-l@lehigh.edu>
Subject: [104234] RBA-1 Balun
Message-ID: <Pine.LNX.4.33.0108041753220.2684-100000@localhost.localdomain>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

A ham has the subject balun and he wrote me that it has a red toroid in it. This means powdered iron which means it will NOT WORK. I wrote a long e-mail to that company explaining why they must use ferrite cores and it must have fell on deaf ears.

I suggest we all stop buying from them and maybe they will get the point.

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sat, 04 Aug 2001 19:45:43 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: brownh@hartford-hwp.com
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [104235] Re: Apartment antenna ideas?
Message-ID: <3B6C8927.2EB76DF4@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Haines,

>

> An anyone point to studies of this approach?

>

You don't want too much do you! Studies? This is ham radio, it's a hobby, not an academic field!

I have used a 40 meter helically wound dipole hanging from the curtains in a California "stucco box" apartment. The antenna was somewhat successful on 40 meters, meaning I could get out with it, but was very successful on 15 meters, meaning I worked about 45 states and 8 or 10 foreign countries.

Is this a study? Nope, it's hearsay unless you live in exactly the same apartment of were there!

73

Date: Sat, 04 Aug 2001 17:02:44 -0700
From: lhlousek <lhlousek@nvhbell.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104236] Re: Apartment antenna ideas?
Message-ID: <008b01c11d41\$f4217e40\$650dfea9@nvhbell.net>

MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

John AE5X wrote:

<<<I've operated from numerous hotels This is the antenna that's given me the best and most consistent results:...Cut a 1/4 wavelength of #26 magnet wire and drop it out your window, tying it off to a point as far from the building as possible>>>

I've had very good results with just about the same setup except I use a collapsing fishing pole and stick it out the window of the hotel with one 1/4 wave wire running along it and hanging from the end with a small weight. One pole I have is 20' long and collapses to 47" long which is a little long to carry around conveniently when traveling via commercial airlines. I also have a 14' pole that collapses to a more reasonable 16" (from Cabela's). Like John I run the other 1/4 wave wire along the floor in the room. This has worked well from the upper floors of hotels. Often I find that the windows will open only a few inches and have screens on them. Usually I can take out a few screws and remove the window stops so I can open a window far enough to get the screen off. Last couple of trips I managed to work Russia, Finland and Chile from the SFO area with this set up and my K2.

Lou W7DZN

Date: Sat, 4 Aug 2001 19:00:08 -0500
From: "Rob Matherly" <kc0bom@yahoo.com>
To: <k5di@zianet.com>, "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [104237] Re: RBA-1 Balun
Message-ID: <000a01c11d44\$b8b16660\$6711a541@intern01>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Please forgive my ignorance here, but:

- 1: Why wouldn't it work?
- 2: Why would the company manufacture it if they knew it wouldn't work?

Remember, I'm a relatively new ham (4 ') and am just curious.

Tnx es 72/73/oo

Rob, kc0bom

----- Original Message -----

From: Karl F. Larsen <k5di@zianet.com>

To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Sent: Saturday, August 04, 2001 6:56 PM

Subject: RBA-1 Balun

>
> A ham has the subject balun and he wrote me that it has a red
> toroid in it. This means powdered iron which means it will NOT WORK. I
> wrote a long e-mail to that company explaining why they must use ferrite
> cores and it must have fell on deaf ears.
>
> I suggest we all stop buying from them and maybe they will get the
> point.
>
> --
> Yours Truly,
>
> - Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Do You Yahoo!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Sat, 4 Aug 2001 19:28:58 -0500

From: "Rob Matherly" <kc0bom@yahoo.com>

To: <kc0bom@yahoo.com>, "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>

Subject: [104238] Re: RBA-1 Balun

Message-ID: <002201c11d45\$a0404500\$6711a541@intern01>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

> Remember, I'm a relatively new ham (4 ') and am just curious.

That should read 4yrs, not four foot. I have no idea why it did that....

72/73/oo

Rob, kc0bom

Do You Yahoo!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Sat, 4 Aug 2001 20:42:41 -0400 (EDT)
From: wb4mnf@atl.org
To: qrp-1@Lehigh.EDU
Subject: [104239] Moving. Here is tip of the iceberg.
Message-ID: <200108050042.UAA00603@hat-trick.atl.org>
Content-Type: text

I'm moving next fall and can't take all the junk errr toys.
Here is URL where I'll be listing.
So far just a little bit is there.

If you don't like asking price, check back as I'll
lower eventually. If you don't see something you want,
check back as I'll be adding stuff regularly.

<http://199.184.215.33/catalog/>

-bob
wb4mnf

I'll likely respond sooner to mail sent to
tongaloea@alltel.net than to my mailing list address.

Date: Sat, 04 Aug 2001 18:15:09 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: kc0bom@yahoo.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104240] Re: RBA-1 Balun
Message-ID: <3B6C9E1D.D9AF67E2@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Rob Matherly wrote:

>
> > Remember, I'm a relatively new ham (4 ') and am just curious.
>
> That should read 4yrs, not four foot. I have no idea why it did that....
>

Hmmm .. the youngest ham I've heard of :-;

Phil

Date: Sat, 4 Aug 2001 20:16:57 -0500 (CDT)
From: Joe Reed <joe@n9jr.dyndns.org>
To: "W3CDE Jerry L." <w3cde@bellsouth.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104241] Re: 80 meter QRPP CW beacon / propagation study
Message-ID: <Pine.LNX.4.21.0108042014550.2776-100000@n9jr.dyndns.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Don't know if I would like to sit by the radio 7x24 until next winter. Unless the FCC has changed the rules, unattended beacons still remain illegal below the 28MHz beacon band.

Joe N9JR

On Sat, 4 Aug 2001, W3CDE Jerry L. wrote:

> Personally, I would move it down in frequency...
>
> Jerry
> W3CDE
>
> "Bill, N4QA" wrote:
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> > ahem...
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> > Phil is right !
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> > Ok, ok, EVERYONE who follows the directions in the beacon text will receive
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> > Since the beacon *MAY* run all the way through next winter(24-7), everyone
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> > >From: Phil Wheeler <w7ox@earthlink.net>
> > >To: n4qa@hotmail.com
> > >CC: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> > >Subject: Re: 80 meter QRPP CW beacon / propagation study
> > >Date: Sat, 04 Aug 2001 15:08:26 -0700
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> > >"Bill, N4QA" wrote:
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> > > > First person to post the entire text of this beacon to QRP-L wins one
> > > > attagirl / attagirl, as the case may be.
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> > >Well .. kinda discriminating against us Left Coast guys; only 1508 PDT
> > >here :-;
> > >
> > >Phil
> >
> > _____
> > Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>
>

Date: Sat, 04 Aug 2001 21:19:24 -0400
From: "W3CDE Jerry L." <w3cde@bellsouth.net>
To: Joe Reed <joe@n9jr.dyndns.org>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104242] Re: 80 meter QRPP CW beacon / propagation study
Message-ID: <3B6C9F1C.8C9DC459@bellsouth.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Joe,

I had reference to below the broadcast band...

Jerry

Joe Reed wrote:

```
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> > > >To: n4qa@hotmail.com
> > > >CC: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> > > >Subject: Re: 80 meter QRPP CW beacon / propagation study
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> > > >Phil
> > > >
> > > >-----
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> >

Date: Sat, 4 Aug 2001 20:24:08 -0500 (CDT)
From: Joe Reed <joe@n9jr.dyndns.org>
To: w3cde@arrl.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104243] Re: 80 meter QRPP CW beacon / propagation study
Message-ID: <Pine.LNX.4.21.0108042023200.2776-100000@n9jr.dyndns.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Not you Jerry, sorry. But N4QA who posted the original message.

On Sat, 4 Aug 2001, W3CDE Jerry L. wrote:

> Joe,
>
> I had reference to below the broadcast band...
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> Jerry
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> Joe Reed wrote:
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> > > > >To: n4qa@hotmail.com
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> > > > > >
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> > >
>

Date: Sat, 04 Aug 2001 21:48:07 -0400
From: Lourette <lourette@localnet.com>
To: "Bob Tellefsen" <n6wg@earthlink.net>
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [104244] Re: Antenna feed line length?
Message-ID: <3.0.5.32.20010804214807.00837100@localnet.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Bob,

Thank you for the most excellent response. I feel better. Since I am using a half square at about 1/2 wave up, I am getting the theoretical 50 OHMS so the feed line does not seem to affect the SWR. I think I am pretty close to 1:1. I am working on mods to an SWR meter to increase its sensitivity.

I have been researching Bobtail curtains and I have been reading much about how they should be fed with the correct length. This is so the tuner can make the impedance 50 OHMS as you indicate.

What I really want to make is a Bobtail curtain beam. That is a bobtail curtain with another passive one behind it. In addition to increasing the gain, it raises the impedance to 50 OHMS. It is a bit big though.

Thanks again.

Richard
AB2MD

At 06:05 PM 8/4/01 -0700, you wrote:

>Hi Lourette

>If (BIG IF) your feedpoint on the antenna is 50 ohms, the feedline can be
>any length you want with little or no reflected power effects. Low
>reflected power=low swr. That is a big reason why some of us play with
>antenna modeling programs to try to get the 50 ohm match on the antenna.

>

>If you don't have a 50 ohm Z (means impedance) at the feedpoint, then the
>antenna feedline can act like a transformer, changing the not-50-ohms to
>something else that will also likely be not-50-ohms. It can be hard to
>predict what you will get.

>

>If you use coax that is exact ELECTRICAL multiples of a half wave, whatever
>the feedpoint Z is will show up at the shack end of the feedline. Then your
>antenna tuner can match it just as if it was right up at the antenna
>feedpoint. This is a slick trick that a lot of hams use when they can't
>control the feedpoint Z.

>

>Ok, how do you know when you have an ELECTRICAL half wave? In coax, it will
>be roughly .67 of the physical (or calculated) halfwave length. In other
>words, a 66 ft physical halfwave would be about 44 ft in coax. You will
>need to do some testing to see just how long the ELECTRICAL half wave is in
>your specific piece of coax.

>

>You can cut it to the exact length this way. Start with a piece that is
>intentionally long, say around 46 ft per half wavelength. This buys you
>some cushion for trimming.

>1. Short the end away from the transmitter (the end that will connect to
>the antenna). Let's call this end B. I usually strip the center insulation
>back a bit to expose the center conductor, then just wrap the braid right
>around the center conductor.

>2. Make a T connection between the output side of your reflected power
>meter, your 50 ohm dummy load, and end A of the coax. You can use a T
>connector if you have one. Otherwise, you can just solder the center
>conductors of two short pieces of coax and end A together, and do the same
>with the braids. At 7 Mhz this will not introduce enough error to bother
>with.

>3. Set the reflected power meter for maximum sensitivity, and turn your TX
>way down.

>4. Now, since you are transmitting into a dummy load, you can set the
>transmitter freq anywhere you want. Look at 7.000 MHz with enough TX power
>to bring the swr needle up to about 3/4 scale reflected power. If you can't
>turn down your TX power to something very low, go as low as you can and back
>off the reflected power meter sensitivity. Now check at 7050 and 7100 and
>7150.

>

> If the reflected power decreases as you go up in frequency, this is
>good. It means your coax is long and we can trim it to get the correct
>length. It is bad news if the reflected power increases as we go up and is
>still increasing when you hit 7150. That means the coax is a bit short.
>You could splice in another piece, or add a length with coax connectors. We
>have a short at the far end of the coax, and we are looking for the
>frequency with the max reflected power. This is the frequency where the
>distant short is duplicated at the reflected power meter, looking like a
>terrible mismatch. This is intentional.

>

>5. Assuming the highest reflected power was somewhere below 7000, trim say
>6 inches off the B end of the coax and short it again. Now repeat the test
>in step 4. You should see the reflected power increase a little bit.

>

>The frequency of max reflected power should increase with each trim until it
>is wherever you want it. If your primary interest is 7100-7150, I would
>trim for about 7075 on the theory you will upgrade at some point. You won't
>want to go through this process again with a new piece of coax. The
>response should be broad enough that you can use it in your desired range
>with little trouble.

>
>Once you have the feedline trimmed correctly, your antenna tuner will be
>looking right at the antenna feedpoint Z as if the feedline wasn't in the
>way. It should be easy to get your match now.
>
>I hope this helps, Lourette. If you have any questions, fire them back at
>me.
>73, Bob N6WG
>Newark, CA on SF Bay
>
>
--
Richard Lourette
AB2MD
lourette@localnet.com

Date: Sat, 4 Aug 2001 21:32:16 -0500
From: "Rob Matherly" <kc0bom@yahoo.com>
To: "Phil Wheeler" <w7ox@earthlink.net>
Cc: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [104245] Re: RBA-1 Balun
Message-ID: <004f01c11d56\$f6fc3000\$6711a541@intern01>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

They say I'm way ahead grammatickally in my pre-skool. :-)

Hukt on foniks wurkt fer me!

(Off the subject, how is an illiterate adult supposed to remember
1-800-ABCDEFGF, a phone number full of letters?)

72/73/oo
Rob, kc0bom

> > > Remember, I'm a relatively new ham (4 ') and am just curious.
> >
> > That should read 4yrs, not four foot. I have no idea why it did
that....
> >
>
> Hmmm .. the youngest ham I've heard of :-;
>

> Phil

Do You Yahoo!?
Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Sun, 05 Aug 2001 00:05:14 -0500
From: "George, W5YR" <w5yr@att.net>
To: k5di@zianet.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104246] Re: RBA-1 Balun
Message-ID: <3B6CD40A.219C9BFE@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Makes you wonder about all the inductors they use in their tuners . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Karl F. Larsen" wrote:

>
> A ham has the subject balun and he wrote me that it has a red
> toroid in it. This means powdered iron which means it will NOT WORK. I
> wrote a long e-mail to that company explaining why they must use ferrite
> cores and it must have fell on deaf ears.
>
> I suggest we all stop buying from them and maybe they will get the
> point.

Date: Sat, 04 Aug 2001 23:40:35 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: w5yr@att.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104247] Re: RBA-1 Balun
Message-ID: <3B6CEA63.39213FAF@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

According to the manual at the LDG website, they now use a ferrite core in the balun.

Phil

"George, W5YR" wrote:

>
> Makes you wonder about all the inductors they use in their tuners . . .
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
> Amateur Radio W5YR, in the 55th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
> "Karl F. Larsen" wrote:
> >
> > A ham has the subject balun and he wrote me that it has a red
> > toroid in it. This means powdered iron which means it will NOT WORK. I
> > wrote a long e-mail to that company explaining why they must use ferrite
> > cores and it must have fell on deaf ears.
> >
> > I suggest we all stop buying from them and maybe they will get the
> > point.

Date: Sun, 05 Aug 2001 07:56:09 +0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: w7ox@earthlink.net, qrp-l@Lehigh.EDU
Subject: [104248] Re: RBA-1 Balun
Message-ID: <F231A1J1vGf1eNnBp850001278a@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>
>According to the manual at the LDG website, they now use a ferrite core
>in the balun.

> > > A ham has the subject balun and he wrote me that it has a red
> > > toroid in it. This means powdered iron which means it will NOT WORK.

A red toroid *could* be ferrite. It depends on the supplier. I've seen ferrite toroids of all colours!

73, Leon

--

Leon Heller, G1HSM

Tel: +44 1327 359058

Email:leon_heller@hotmail.com

My web page: http://www.geocities.com/leon_heller

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 05 Aug 2001 09:00:24 +0000

From: "Leon Heller" <leon_heller@hotmail.com>

To: qrp-1@Lehigh.EDU

Subject: [104249] Direct-coupled feedback pair amplifier

Message-ID: <F97NLnlyg35sQtgTIFp0000b9e6@hotmail.com>

Mime-Version: 1.0

Content-Type: text/plain; format=flowed

The direct-couple feedback pair amplifier is a useful circuit, but isn't often analysed in the textbooks. I recently wanted to use it for a microphone pre-amp, and have put my design technique, including a SPICE simulation, on my web site:

http://www.geocities.com/leon_heller

BTW, the microphone (electret) and amplifier combination is *very* sensitive. The noise level is quite acceptable, given that I used general-purpose transistors.

73, Leon

--

Leon Heller, G1HSM

Tel: +44 1327 359058

Email:leon_heller@hotmail.com

My web page: http://www.geocities.com/leon_heller

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 05 Aug 2001 03:34:09 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: Leon Heller <leon_heller@hotmail.com>
Cc: qrp-l@Lehigh.EDU
Subject: [104250] Re: RBA-1 Balun
Message-ID: <3B6D2121.2AC57263@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Leon,

I've read both the new and old RBA-1 manuals.

I'm basing my statements on the cores listed in the parts lists .. not on the color.

73, Phil W7OX

Leon Heller wrote:

>
> >
> >According to the manual at the LDG website, they now use a ferrite core
> >in the balun.
>
> > > > A ham has the subject balun and he wrote me that it has a red
> > > > toroid in it. This means powdered iron which means it will NOT WORK.
>
> A red toroid *could* be ferrite. It depends on the supplier. I've seen
> ferrite toroids of all colours!
>
> 73, Leon
> --
> Leon Heller, G1HSM
> Tel: +44 1327 359058
> Email:leon_heller@hotmail.com
> My web page: http://www.geocities.com/leon_heller
>
> -----
> Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 5 Aug 2001 05:46:48 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: "George, W5YR" <w5yr@att.net>
Cc: <k5di@zianet.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104251] Re: RBA-1 Balun

Message-ID: <Pine.LNX.4.33.0108050544230.1188-1000000@localhost.localdomain>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

It sure does George. I will take the lid off mine and see. Come to think of it, my automatic tuner acts like saturation happens at 100 watts. The SWR changes between 5 and 100 watts...

On Sun, 5 Aug 2001, George, W5YR wrote:

> Makes you wonder about all the inductors they use in their tuners . . .
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
> Amateur Radio W5YR, in the 55th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
> "Karl F. Larsen" wrote:
> >
> > A ham has the subject balun and he wrote me that it has a red
> > toroid in it. This means powdered iron which means it will NOT WORK. I
> > wrote a long e-mail to that company explaining why they must use ferrite
> > cores and it must have fell on deaf ears.
> >
> > I suggest we all stop buying from them and maybe they will get the
> > point.
>

--
Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sun, 5 Aug 2001 06:06:55 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Rob Matherly <kc0bom@yahoo.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104252] Re: RBA-1 Balun
Message-ID: <Pine.LNX.4.33.01080506000000.1188-1000000@localhost.localdomain>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

By agreement for at least 20 years core makers have used a color code to indicate the material in the core. Red means powdered iron, no color a ferrite material.

A RBA-1 owner wrote me and said his balun also has a red toroid just like my BA-1 had.

Powdered iron cores are very lossy. In a balun they will absorb power and not transform the impedance properly. I tested my BA-1 with the standard balun test and it failed. Then I ordered a proper ferrite toroid form and re-wound it and it's now working just fine.

On Sat, 4 Aug 2001, Rob Matherly wrote:

```
> Please forgive my ignorance here, but:
>
> 1: Why wouldn't it work?
> 2: Why would the company manufacture it if they knew it wouldn't work?
>
> Remember, I'm a relatively new ham (4 ') and am just curious.
>
> Tnx es 72/73/oo
> Rob, kc0bom
>
> ----- Original Message -----
> From: Karl F. Larsen <k5di@zianet.com>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Sent: Saturday, August 04, 2001 6:56 PM
> Subject: RBA-1 Balun
>
>
> >
> > A ham has the subject balun and he wrote me that it has a red
> > toroid in it. This means powdered iron which means it will NOT WORK. I
> > wrote a long e-mail to that company explaining why they must use ferrite
> > cores and it must have fell on deaf ears.
> >
> > I suggest we all stop buying from them and maybe they will get the
> > point.
> >
> > --
> > Yours Truly,
> >
> > - Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
>
>
> -----
```

> Do You Yahoo!?
> Get your free @yahoo.com address at <http://mail.yahoo.com>
>
>

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sun, 05 Aug 2001 08:06:42 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: k5di@zianet.com
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [104253] Re: RBA-1 Balun
Message-ID: <3B6D36D2.22D43D40@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Karl,

?

> By agreement for at least 20 years core makers have used a color
> code to indicate the material in the core. Red means powdered iron, no
> color a ferrite material.

>

Paint yes, meaning of the color code is purely the manufacturers own,
though. There is no correspondence from one manufacturer to another.

73

Date: Sun, 05 Aug 2001 08:45:00 -0400
From: John Payne <paynej1@strato.net>
To: QRP-L@lehigh.edu
Subject: [104254] RE: Poqet
Message-ID: <200108051244.IAA19080@green.strato.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Thanks to all who replied, the project is in work, with a
couple of possibilities.

72/3 John N4FLJ

Date: Sun, 5 Aug 2001 08:45:14 -0400
From: nilsbull@juno.com
To: QRP-L@lehigh.edu
Subject: [104255] LPFs, toroids & software gambits
Message-ID: <20010805.084519.-16625.0.nilsbull@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Gang,

Ever since I built the CCI amp & followed their directions for putting LPFs on the butt-end of it, I've had this problem of their design parameters & my modifications (as in "used smaller toroids) bangin' heads with each other. Unfiltered the amp will put out approximately 150 W on all bands. With filters, some bands are ok, some ain't and some have been modified to the point where I ain't sure what I got.

So I found the Micrometals software as a freebie on some web site & have sat here for the past couple days playing with it. Some of my winding data (as compared with the program's specified winding data) agrees pretty much with it. Some don't. And added to this is my use of the ARRL handbook software download that includes patterns for 5 & 7 element LPFs.

Having the ARRL design software is, of course, advantage namba won. Correllating it to the Micrometals software (which runs in a kinda Windowsy-DOS set up) is nice too, but another matter entirely.

So . . . The Micrometals software gives more or less the same info on the toroid specs as the data sheets what come with the cores from Amidon (although the winding data sometimes comes out different). And I believe (from past posts barely remembered) that Micrometals is the source for the Amidon cores. At which point I have to wonder:

1. Is there a more recent freeware/shareware program for computing the core windings vs inductance what lazy people like me can glom & use?
2. Or am I lookin' at fish shadows? (As is: should I just shut up & use the stuff?)

Having rebuilt the LPF set for the amp four times now, I'm less than stunningly eager to deepen myself in more modifications, remembering as I do well (what with \$90 gone from my pocket) other "modifications" that I

made some time ago to expensive, commercially made stuff.

73

Nils

. . . remember when there was only MidCars, EastCars & WestCars? . . .
heard "SouthCars" this morning on 7250 . . . and have vague memory that
I'd heard "NorthCentralCars" back before going on vacation, which is
another story . . .

Nils R. Bull Young -- El Gringo Errante -- La Estancia de los Guajolotes
Sonrientes

W8IJN -- <http://www.geocities.com/nilsbull/w8ijn>

"In MY day we FIGHT to have earphones! Every DAY was STRUGGLE!"

-- Comrade Nikolai Sergeievich McTovarishov, 19

Oct 1917

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<http://dl.www.juno.com/get/tagj>.

Date: Sun, 05 Aug 2001 13:21:37 +0100

From: Larry Cahoon <lejek@erols.com>

To: qrp-l@lehigh.edu

Subject: [104256] Power Management Contest - Results WD3P

Message-ID: <5.0.2.1.0.20010805130730.00a09210@pop.erols.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

Ok since I set up the rules I had to do the contest. So let's hear how
others did it.

Equipment was 10 1600 mAh MAHA NiMH batteries charged the morning of the
contest - they started off at 13.68 volts. I worked 80 through 15 meters
using the Sierra for 80 and 15 and the K1 for 40 and 20. Power levels were
between 500 mWatts and 2.5 watts with almost all QSOs between 1 and 2 watts.

I held back early on in the contest looking for multipliers on 20 and
15. Latter I would work anyone who could copy me. For some reason
sending CQ in this contest was not productive. I didn't do it too often
figuring the batteries would not hold up for the whole contest so I'd be
better off in search and pounce mode.

Major error - I got called away to watch a movie with the family - not a

problem but it was not factored into my plans, as a result I never did use up the batteries - of course they lasted a lot longer than I anticipated they would. In the end the K1 said I had 12.0 volts on Rx and 11.2 volts on Tx. Since it was a 10 pack I should have been able to take it down to about 9.8 on Tx on the K1.

Results: 107 QSOs and 58 Mults for a score of 6,280. I had guessed that I would max out the batteries around 70-80 QSOs so they did a lot better than expected.

The breakdown:

Band	QSOs	Mults
15	6	5
20	24	13
40	51	25
80	28	16
Tot	107	58
Score -	6,205	

73 de Larry.....WD3P in MD
<http://www.qsl.net/wd3p/>

Date: Sun, 05 Aug 2001 13:22:40 -0400
From: Bill Meara <n2cqr@clix.pt>
To: qrp-l@lehigh.edu
Cc: homebrew@qth.net
Subject: [104257] 17mtr DSB: AF amp cramps
Message-ID: <3.0.6.16.20010805132240.2d378b0a@pop.clix.pt>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I've been trying to add more AF gain to my direct conversion EX for 17. I have a 100db, three transistor (2n2222a) direct coupled amp similar to the one from SSD. (See my web page for the schematic -- URL in the sig below.) This amp works very well -- it is very quiet and does not take off on me. I have a grounded gate RF amp (about 10 db) ahead of the mixer. I think there is about 8 db of loss in the mixer.

I know the RX would work better with more AF gain. When I plug a little amplified computer speaker in the AF out from the 100 db amp, I can turn the RF gain very low and the whole system seems to work better.

I tried adding an MPF102 amp stage ahead of the 100 db amp. It added far

too much noise. Then I tried an additional 2n2222a stage AFTER the 100 db amp. Again, way too noisy. Today I built a 40 db amp out of the ARRL data book. Again, too much noise.

What am I doing wrong here? Am I proving that there is wisdom in the decision to go with LM386s and other ICs as AF amps? Is it really this difficult to get sufficient AF gain in a DC RX using discrete transistors and simple circuits? Why is it that the 100 db amp is so quiet and works so well, while the others add so much noise?

BTW: I had some AM detection problems with a RADIO EXTERIOR de ESPANA SW broadcast on 17.7 Mhz. I put a series tuned circuit between the RF and ground. A bit of tweaking knocked the SW signal down nicely while leaving 17 meters intact.

Don't get me wrong -- the RX is working nicely already. When I talk to Amadeus, CT2HGL, I can hear his parakeets in the background. And I can hear the seagulls outside G3IUE's window! Recent DX: 4Z4, 9K2, Shettland Islands....

Date: Sun, 05 Aug 2001 06:58:56 -0700
From: "Chris Trask" <ctrask@qwest.net>
To: leon_heller@hotmail.com
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [104258] Re: Direct-coupled feedback pair amplifier
Message-ID: <3B6D5120.102659D6@qwest.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have seen this amplifier in my undergraduate textbook on transistor circuit design. It later evolved into the dual-loop feedback amplifier, wherein the output, taken from the collector of Q2, is coupled to the emitter of Q1, giving quite a bit of linearity improvement in the amplifier and stabilizing the output impedance. It was, and may still be used in cable TV line amplifiers.

Chris

```
>
> The direct-couple feedback pair amplifier is a useful circuit, but isn't
> often analysed in the textbooks. I recently wanted to use it for a
> microphone pre-amp, and have put my design technique, including a SPICE
> simulation, on my web site:
>
>   http://www.geocities.com/leon_heller
>
> BTW, the microphone (electret) and amplifier combination is *very*
> sensitive. The noise level is quite acceptable, given that I used
> general-purpose transistors.
>
> 73, Leon
> --
> Leon Heller, G1HSM
> Tel: +44 1327 359058
> Email:leon_heller@hotmail.com
> My web page: http://www.geocities.com/leon_heller
>
>
> -----
> Get your FREE download of MSN Explorer at http://explorer.msn.com/intl.asp
```

[illegible]

Chris Trask / N7ZWY
Principal Engineer
Sonoran Radio Research
P.O. Box 25240
Tempe, Arizona 85285-5240

Email: ctrask@qwest.net
<http://www.primenet.com/~ctrask>

Date: Sun, 5 Aug 2001 09:23:43 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104259] RE: RBA-1 Balun

Message-ID: <01C11D90.536E05A0.nkennedy@tcainternet.com>

MIME-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Content-Transfer-Encoding: 7bit

Fools rush in, so I have to weigh in on this balun material issue. I know as little about it as anybody.

I guess before making pronouncements, I'd ask, "What kinda balun is it?" I built one along with the Ultimate Transmatch many years ago, from the 1976 ARRL handbook. The balun details called for a T-200-2, big old red powdered iron core.

But those kind are out of fashion now. I guess they're called "voltage baluns". Nowadays, the "current balun" is popular. With this type of balun, you'd just wind the coax (or two 'bifilar" conductors) through a core. This gives an inductive reactance to common mode currents but is transparent to differential mode currents. The current (2000) ARRL antenna handbook describes this type of balun as using a ferrite core. It also shows the old voltage type but indicates that the current type is now preferred.

Iron powder has greater losses? I don't think so. Iron powder is generally used where higher 'Q' (lower loss) is needed.

Iron powder: Higher Q, better temperature stability, lower permeability. Therefore favored for frequency sensitive circuits (tanks, filters) and for VFO frequency determining circuits.

Ferrites: High permeability, so used where a bunch of inductance is needed but without a zillion turns required. Can be lossy (low-Q). Sometimes that fact is exploited. For instance, when ferrite beads are used to prevent spurs, it's really the effective series resistance more than the inductive reactance that you're using.

Getting back to baluns, I guess you'd want that common mode impedance to be high with respect to the 50 ohm impedance of the transmission line. With iron powder and a practical number of turns, you might not get there, especially on the lower frequency bands. So the balun with the iron powder core probably wouldn't 'hurt anything', it just wouldn't be very effective in forcing a balanced condition.

Wondering what kind of balun would appear in a more modern type tuner, I looked at my MFJ Versa Tuner 2 manual. It appears to be a current type balun with bifilar winding. Doesn't tell what type, but I'd imagine it's ferrite.

A nice way to build a current (choke) type balun is with a bunch of big

ferrite beads slid onto a short piece of coax. That's what I use now.
It's handy because I can move it around and use it just like a coax jumper. I got the details from W6RCA's page, but you can see it elsewhere.
Oh--I see it's described in the 2000 Antenna Handbook as the W2DU Balun, originated by Walter Maxwell. (Guess in the ARRL conspiracy against Mr. Maxwell, they forgot to remove this one.) (I'm kidding.)

72 & may all your currents be differential mode,

Nick, WA5BDU

Date: Sun, 5 Aug 2001 10:08:10 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: "'nilsbull@juno.com'" <nilsbull@juno.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104260] RE: LPFs, toroids & software gambits
Message-ID: <01C11D96.88466820.nkennedy@tcainternet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Are you using this software for fancy stuff like peak flux and losses ... or are you just using it to figure the number of turns required for a given inductance value and core type/size? For the latter, I just like to set up a spreadsheet that I use to calculate # of turns for specified inductance or inductance for specified # of turns. I put the reference 'a' values and similar info in the sheet for various cores for easy access.

Like you, I like multiple checks on stuff like this before building. I might model up the filter on electronics workbench and see how it looks. Then if I run into a deal where neither the discrete inductances available with plus or minus one turn looks close to the required value, I'll try both values in the model and see if one is better than the other.

A couple of other useful tools for experimentally verifying things are the AADE L/C meter and the MFJ-259B analyzer. Since actual core permeability may vary, I'll check the as-built inductance with the AADE, and adjust the number of turns if necessary. And after building the filter, assuming it's a 50-in / 50-out type, I'll hook its output to a 50 ohm resistor and look into it with the MFJ. In the band where it is to be used, I oughta see 50

ohms or 1:1 SWR.

Getting back to the spreadsheet, I find it's a really handy way to sort of retain what I've learned when I delve into a new area requiring some complex calculation. I'll try to build the formulas into a spreadsheet and set 'em up so I can play 'what if' by changing various parameters.

Lately I've been adding the 12th wave transformers and also the more general Reiger series section transformer. Excel is good for this because it can handle complex number calculations (those involving imaginary numbers).

72--Nick, WA5BDU

(Always wanted to try one of those CCI amplifiers. Maybe it's a good thing I didn't ...)

Nils said:

1. Is there a more recent freeware/shareware program for computing the core windings vs inductance what lazy people like me can glom & use?
2. Or am I lookin' at fish shadows? (As is: should I just shut up & use the stuff?)

Date: Sun, 5 Aug 2001 10:12:04 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: "'leon_heller@hotmail.com'" <leon_heller@hotmail.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104261] RE: Direct-coupled feedback pair amplifier
Message-ID: <01C11D97.13BE7280.nkennedy@tcainternet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Looked at your page. Pretty nice.

This amplifier is described in Solid State Design for the Radio Amateur on page 21. They call it an RF Amplifier Using Shunt Feedback. The descriptions in SSDRA are good because they give DC and AC analysis of the circuits with simple arithmetic methods.

72--Nick, WA5BDU

-----Original Message-----

From: Leon Heller [SMTP:leon_heller@hotmail.com]

The direct-couple feedback pair amplifier is a useful circuit, but isn't often analysed in the textbooks. I recently wanted to use it for a microphone pre-amp, and have put my design technique, including a SPICE simulation, on my web site:

http://www.geocities.com/leon_heller

Tel: +44 1327 359058

Email:leon_heller@hotmail.com

My web page: http://www.geocities.com/leon_heller

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 5 Aug 2001 09:01:19 -0400

From: "Walt Amos" <k8cv@netzero.net>

To: "List Qrp-1" <qrp-1@lehigh.edu>, <kc0bom@yahoo.com>

Subject: [104262] Re: Slash Zero

Message-ID: <000301c11dc3\$b6ce82e0\$54d43604@NetZeroUser>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 8bit

hey there it is

But you must FIRST push the numlock key on the keypad

Walt K8CV Royal Oak, MI

----- Original Message -----

From: "Rob Matherly" <kc0bom@yahoo.com>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Saturday, August 04, 2001 2:25 PM

Subject: OT: Slash Zero

> Hi;

>

> If you hold down alt and type 0216 on the keypad, repeat, keypad (won't

work

> if you don't) it should give you this, , a zero with a slash through it.
> If you don't see it, it's because it only seems to work on Windows
operating
> systems. It's an extended ASCII character that other os's won't accept for
> some reason.(Oh, that's gonna get me flamed...) . From what I am told,
it
> is actually a Swedish or Nordic (sp?) letter. Either way, it spices up a
> zero call a little bit :-)

>

>

> 72/73

> Rob, kc0bom

>

> ----- Original Message -----

> From: Michael Bower <bowerm@ix.netcom.com>

> To: <kc0bom@yahoo.com>

> Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

> Sent: Saturday, August 04, 2001 6:24 AM

> Subject: Re: What is the BUZ SAW sound on 7.040

>

>

> > Ok, I'll bite. What is the alt-0-2-1-6 trick???

> >

> > Curios minds need to know.

> >

> > N4NMR

> >

> >

> > Rob Matherly wrote:

> > >

> > > Oh. I see the alt-0-2-1-6 trick doesn't work here. Dang.

> > >

> > > Rob, kc_0_bom

> > >

> > > ----- Original Message -----

> > > From: Rob Matherly <kc0bom@yahoo.com>

> > > To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

> > > Sent: Friday, August 03, 2001 9:57 PM

> > > Subject: Re: What is the BUZ SAW sound on 7.040

> > >

> > > > I'm hearing something like that on 7.050. I've heard it before, but
> don't

> > > > have the foggiest idea what it is!

> > > >

> > > > Rob, kc bom (woo, fancy zero!)

> > > >

> > > > ----- Original Message -----

> > > > From: Wayne <aa5jj@swbell.net>
> > > > To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> > > > Sent: Friday, August 03, 2001 9:46 PM
> > > > Subject: What is the BUZ SAW sound on 7.040
> > > >
> > > >
> > > > > There is a BUZ SAW sound on 7.040 that I have never heard before
any
> > > ideas
> > > > what this is ?
> > > >
> > > > Wayne AA5JJ
> > > >
> > > >
> > > > -----
> > > > Do You Yahoo!?
> > > > Get your free @yahoo.com address at <http://mail.yahoo.com>
> > > >
> > > > -----
> > > > Do You Yahoo!?
> > > > Get your free @yahoo.com address at <http://mail.yahoo.com>
> >
> > --
> > 73 de N4NMR
> > Michael Bower
> > Ashburn, VA (near Washington, D.C.)
>
>
> -----
> Do You Yahoo!?
> Get your free @yahoo.com address at <http://mail.yahoo.com>
>
>

NetZero Platinum
Sign Up Today - Only \$9.95 per month!
<http://my.netzero.net/s/signup?r=platinum&refcd=PT97>

Date: Sun, 5 Aug 2001 08:55:08 -0400
From: "Walt Amos" <k8cv@netzero.net>
To: "List Qrp-1" <qrp-1@lehigh.edu>
Subject: [104263] Fw: Apartment antenna ideas?
Message-ID: <000201c11dc3\$b5773040\$54d43604@NetZeroUser>
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Gang, newbies and kids:

I once, in a time far past, rented a condo for a month in Florida on the beach. When renting it over the phone I was told " your antenna will be just fine " ! HA !! Got there and put up the antenna and within an hour a drunken condo policeman was at the door telling me to take it down. Naturally I told him where to shove it! But he got on the phone to the rental outfit and soon it had to come down. I put it up inside from the front drapery rod through the hall to the back bed room drapery rod and just let the excess lay on the floor. IT WORKED! But the TELEVISION sure didn't ! CROSSHATCH city! But it was CONTEST WEEKEND so I operated all weekend and had a ball ! Monday there were 5 cable TV trucks in the parking lot looking for the interference as we went off to the restaurant for breakfast. :-) They never did figure out who was trashing them! But, hey, they made me take my antenna down so it couldn't have been ME :-)

Bet they were glad when my month was up :-)

Walt K8CV Royal Oak, MI

----- Original Message -----

From: "Bruce Muscolino" <w6toy@erols.com>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Saturday, August 04, 2001 2:08 PM

Subject: Re: Apartment antenna ideas?

>

> Guys,

>

> I don't want to start a thread that says my antenna is better than
> yours! Scott has a simple problem, he wants a simple antenna. Let him
> start that way. I'm sure the W3FF dipole is a great antenna. It is not
> a big reduction in size from a full sized a20 meter antenna, 20 feet vs.
> 33 feet. Having built a very successful 20 meter antenna that was only
> 3 meters long end to end, I could also say mine would work.

>

> BUT, the idea of putting one up on a 10 foot pole in the parking lot
> seems to do what Scott does not want - it calls attention to his hobby
> for all his neighbors to see! It might not matter what you put up in
> your own driveway, or at a campground, but in a common area like an
> apartment parking lot there are a whole bunch of negative issues. Your
> neighbors will know what you are doing - every TV set in the building
> will break and it will be your fault! Cars entering the parking lot may
> hit the antenna resulting in damages. Your landlord might ask you to

> move! Think about it.
>
> The W3FF antenna, or mine, for that matter, if installed inside might
> work. I used my 20 meter dipole hanging in my bedroom for a year or so
> with very good results.
>
> 73
>

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Date: Sun, 5 Aug 2001 10:08:14 -0500
From: Ken Brown <n4so@juno.com>
To: qrp-1@lehigh.edu
Subject: [104264] Extra Parts
Message-ID: <20010805.102323.14334.4.n4so@juno.com>

I ordered extra parts of the machine screws,
washers and nuts for the Automatic Sealed Lead
Acid Battery Charger in May 2001 QST mag. page 43.
This charger powers an Elecraft K2 or any of the QRP
radios.

The bags contained 100 parts and I used only a few
of the parts in the bags. If you are building this
charger, or require #4 or 4-40 type machine screws,
perhaps we can work out a swap or trade.

Would be glad to trade with anyone requiring
the following:

- #4 x 8mm metric machine screws
- #4 metric flat washers
- 4-40 x 1/4 machine screws
- 4-40 x 1/2 machine screws
- #4 flat washers
- #4 lockwashers
- 4-40 hex nuts

Charles Brown 12165 Miller Lane, Grand Bay, AL
36541

Ken Brown N4SO

Mobile, AL EM50tk
NorCal 20 at 5 watts
4 element mono. yagi
Elecraft K1 #260

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<http://dl.www.juno.com/get/tagj>.

Date: Sun, 5 Aug 2001 09:38:28 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-1@lehigh.edu>
Subject: [104265] WWV time and conditions
Message-ID: <Pine.LNX.4.33.0108050931240.1814-100000@localhost.localdomain>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

The new Bureau of Standards wants to end the WWV transmissions. They think no-one is listening any more. They assume the internet is now used instead of radios.

But since we QRP hams use it to calibrate our kits frequency and listen to the bad conditons report, and see on what frequency we can hear WWV on and such we need to tell tham to keep WWV on the air.

You can do that by going to www.timessurvey.dis.wwv and fill in the form provided. Just tell them all the stuff you use.

--
Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sun, 05 Aug 2001 11:43:36 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: k8cv@netzero.net
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [104266] Re: Fw: Apartment antenna ideas?
Message-ID: <3B6D69A8.BFA9BB8C@erols.com>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Walt,

Probably every old timer has similar stories to tell. Indoor antennas work best at QRO power levels (your radiated power may be QRP, but that's because of absorption!) and experience is required! You are lucky that the condo policemen didn't remember you as the cause of the problem and sic the Cable guys onto you!

I used a helically wound dipole hanging from the curtains in my living room for about 2 years!.

73

Date: Sun, 5 Aug 2001 11:15:38 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: "'k5di@zianet.com'" <k5di@zianet.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [104267] RE: WWV time and conditions
Message-ID: <01C11D9F.F5AAC6A0.nkennedy@tcainternet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Good tip, Karl. My browser couldn't find the page at the link you gave. I found it at <http://www.timesurvey.nist.gov/> . (I guess it's the same survey.)

Another interesting use for WWV--these days just about every amateur guitar and banjo picker has one of these little pocket tuners. You play the note into the built-in mike and the thing tells the note and if you are flat or sharp or dead on. A real asset to all us tin-eared Earl Scruggs wannabes.

I wondered if the built in standard might vary from unit to unit. Well, you know that tone that WWV transmits right on the minute? At a certain time (I think it's two minutes after the hour, excluding 0000Z), the tone transmitted is a perfect 440 Hz 'A' note. So you can turn on your AM detector and put your pocket tuner near the speaker and see how close it is. Pretty slick.

72--Nick, WA5BDU

-

Date: Sun, 5 Aug 2001 12:18:44 -0400
From: "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [104268] RE: WWV time and conditions survey URL
Message-ID: <GCECIJFJPOHMCKACOA0BKEIJCLAA.jakecart@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

I just filled out the WWV survey at URL

<http://timesurvey.nist.gov/>

73,

Jake -- N4UY

-----Original Message-----

From: owner-qrp-1@Lehigh.EDU [mailto:owner-qrp-1@Lehigh.EDU] On Behalf Of
Karl F. Larsen
Sent: Sunday, August 05, 2001 11:38 AM
To: Low Power Amateur Radio Discussion
Subject: WWV time and conditions

The new Bureau of Standards wants to end the WWV transmissions. They think no-one is listening any more. They assume the internet is now used instead of radios.

But since we QRP hams use it to calibrate our kits frequency and listen to the bad conditions report, and see on what frequency we can hear WWV on and such we need to tell them to keep WWV on the air.

You can do that by going to www.timesurvey.dis.wwv and fill in the form provided. Just tell them all the stuff you use.

--
Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sun, 05 Aug 2001 09:18:33 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: k5di@zianet.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104269] Re: WWV time and conditions
Message-ID: <3B6D71D9.EC53A7AA@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

"Karl F. Larsen" wrote:

>
> The new Bureau of Standards wants to end the WWV transmissions. They think
> no-one is listening any more. They assume the internet is now used instead
> of radios.
>

Shades of the BBC!

> But since we QRP hams use it to calibrate our kits frequency and
> listen to the bad conditons report, and see on what frequency we can hear
> WWV on and such we need to tell tham to keep WWV on the air.
>

Do they plan to zap the VLF sigs that calibrate all the fancy new clocks
as well?

> You can do that by going to www.timessurvey.dis.wwwv and fill in
> the form provided. Just tell them all the stuff you use.
>

Will do, Karl (later msgs revising the url duly noted!)

73, Phil

Date: Sun, 5 Aug 2001 12:52:16 EDT
From: N0tk@aol.com
To: k5di@zianet.com, qrp-1@lehigh.edu
Subject: [104270] Re: RBA-1 Balun
Message-ID: <f.183dbb40.289ed3c0@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

Content-Transfer-Encoding: 7bit

Rob

Sorry for the general post but I didn't have your email addr. Iron powder toroidal cores generally have permeabilities a factor of 10 less than ferrite toroidal cores. If a iron powder core is substituted for a ferrite core, at high values of magnetizing force (in this case input power) the iron powder core will saturate earlier than the ferrite core and the effective inductance will decrease. A balun needs a certain amount of inductance to perform the unbalanced to balanced transformation. If the toroid's inductance is insufficient, then the balun performance will suffer. This is also a reason for good balun performance at low power levels and poor performance at higher power levels.

Good reading material on this subject is in the ARRL Handbook. Chapter 6 in the 2000 Handbook has coverage of permeability, saturation, and inductance on pages 6.14-6.17. Coverage of transmission line transformers is on pages 6.47-6.50.

Good luck and keep on learning.

Dan N0TK

Highlands Ranch,CO

Date: Sun, 05 Aug 2001 17:08:42 -0400

From: Bill Meara <n2cqr@clix.pt>

To: qrp-l@lehigh.edu

Cc: homebrew@qth.net

Subject: [104271] 17mtr DSB: URL for site

Message-ID: <3.0.6.16.20010805170842.23ff4f4a@pop.clix.pt>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Somehow my signature block was deleted. See below for the URL of my site.
Just click on the 17 meter DSB link.

73 de CU2JL (aka N2CQR)

Bill Meara

Sao Miguel Island,

The Azores, Portugal

<http://planeta.clix.pt/n2cqr>

73 de CU2JL (aka N2CQR)

Bill Meara

Sao Miguel Island,

The Azores, Portugal

<http://planeta.clix.pt/n2cqr>

Date: Sun, 05 Aug 2001 09:22:02 -0700
From: lhlousek <lhlousek@nvhbell.net>
To: N0tk@aol.com, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104272] Re: RBA-1 Balun
Message-ID: <006c01c11dca\$c2b62200\$650dfea9@nvhbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Hi Dan,

You said:

<<<If a iron powder core is substituted for a ferrite core, at high values of magnetizing force (in this case input power) the iron powder core will saturate earlier than the ferrite core>>>

I don't think this is correct. Page 1-1 in the Amidon catalog says:

"the high permeability of ferrite ... saturates easily"

With the same size and turns higher permeability will net a much higher degree of magnetization and the material will saturate at lower currents.

Lou W7DZN

Date: Sun, 05 Aug 2001 10:44:09 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: N0tk@aol.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104273] Re: RBA-1 Balun
Message-ID: <3B6D85E9.999858A1@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

N0tk@aol.com wrote:

>
> Rob
> Sorry for the general post but I didn't have your email addr. Iron powder
> toroidal cores generally have permeabilities a factor of 10 less than ferrite

> toroidal cores. If a iron powder core is substituted for a ferrite core, at
> high values of magnetizing force (in this case input power) the iron powder
> core will saturate earlier than the ferrite core and the effective inductance
> will decrease. A balun needs a certain amount of inductance to perform the
> unbalanced to balanced transformation. If the toroid's inductance is
> insufficient, then the balun performance will suffer. This is also a reason
> for good balun performance at low power levels and poor performance at higher
> power levels.

Re the LDG baluns, here is some data:

- o Old design (I have one): Core is a T-130-2 (powdered iron)
- o New design (from website): Core is an FT-125 (ferrite)

I plan to call LDG and (innocently) ask why hey made the design change.
Depending on the response, I may try to get an exchange, since I
purchased mine direct from LDG (assembled) about two years ago.

73, Phil W70X

Date: Sun, 5 Aug 2001 13:52:04 -0400
From: "Tom Bowman" <tbowman@nbn.net>
To: "QRP-L" <qrp-l@lehigh.edu>
Subject: [104274] Slightly OT: Must I use an electrolytic?
Message-ID: <010d01c11dd7\$568addc0\$43b2473f@tombowma>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Here is one I never ran into before: I'm building a gel cell charger
using a UC3906 IC and the schematic and parts list call for
a .22 ufd electrolytic to run from pin 14, marked "Compensation,"
to ground.

I have no idea what that part of the circuit does as this is all inside the
chip.

But the schematic calls for an electrolytic. Can I substitute a ceramic disc
for an electrolytic???

What qualities does an electrolytic have - other than lots
of capacity in a small space - that I would not have in a disc cap?

73,

Tom, WA3REY

Date: Sun, 05 Aug 2001 09:54:30 -0700
From: lhlousek <lhlousek@nvhbell.net>
To: Elecraft-list <elecraft@qth.net>, QRP-L list <qrp-l@Lehigh.EDU>
Subject: [104275] Local sources for magnet wire
Message-ID: <008301c11dcf\$4bef6320\$650dfea9@nvhbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Evidently, colorful magnet wire is now very popular among the arts and crafts type. I found sizes ranging from 30 to 20 AWG in a wide range of colors at the local Ben Franklin's craft store. They had several gauges of tinned buss wire too! I can't vouch for the electrical quality of the stuff but it looks indistinguishable from what you get from electronics supply houses. Prices in the longer lengths weren't too bad either. I also found copper sheeting in various thicknesses.

Lou W7DZN

Date: Sun, 5 Aug 2001 19:54:12 +0200
From: "Juanjo Pastor" <ec5aca@wanadoo.es>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [104276] It's time for a DX cub fox hunt
Message-ID: <009c01c11dd7\$cb1f8820\$ad3e243e@juanjopectv>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

Hello, hound puppies.

My time has arrived and it's my turn in the barrel. I will be your DX cub fox next Tuesday at 2300Z. That's 1:00 AM here, so I will be stealing a couple of hours to my own sleeping time, but I hope it will be both productive and enjoyable.

My scheduled time will be from Tuesday the 7th at 2300z to Wednesday the 8th at 0100z. I will try to run at 13 WPM, would QRS if needed (I usually try to use the speed the other station is sending at). I plan to be in 14.04x, anywhere where I find enough of a frequency slice and will be hearing approx. 1KHz over my own frequency. Please leave my TX frequency free as a courtesy to your fellow hound puppies, but I do have a rit and will try to raise some zero beat QSOs during the final half hour. I will be using a TenTec 1320 and a CB 5/8 wave GP whip but I hope I will raise my share of hound puppies...

My exchange:

I'll send the obligatory:

CQ FOX DE EA5CHQ K

or

QRZ FOX DE EA5CHQ K

Hounds will reply with their call; only once please.

W1SWL (as an example)

To which I will respond:

W1SWL 559 EA JUANJO 2W W1SWL BK

To which W1SWL would reply:

R 559 CT DAVE 5W BK

If I missed his state, for instance, I would ask for a fill:

SPC? SPC? BK

To which W1SWL would reply:

CT CT BK

When I've got the complete exchange, I will respond:

TU QRZ FOX DE EA5CHQ

Remember, the exchange is:

RST (STATE, PROVINCE, or COUNTRY) NAME POWER

73, 72 de Juanjo, EA5CHQ-EC5ACA. EA-QRP #104, G-QRP #9742,
QRP-L #1662.

Juanjo Pastor
C/San Roque, 4-1
46460 Silla
SPAIN

Tel.: +034 96 120 17 67

Movil: 651 35 35 11

Date: Sun, 5 Aug 2001 14:09:01 EDT
From: K4BYF@aol.com
To: qrp-1@lehigh.edu
Subject: [104277] TEK465 Part
Message-ID: <cd.a3ed143.289ee5bd@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

I am trying to locate a combination slope/level control for a Tektronix 465
"O" scope. The TEK number is 311-1192-00. Thanks. Jack, K4BYF

Date: Sun, 05 Aug 2001 11:19:20 -0700
From: KB7WW Art Moe <kb7ww@uswest.net>
To: K4BYF@aol.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104278] Re: TEK465 Part
Message-ID: <3B6D8E28.F9FE46A6@uswest.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Try Deane Kidd W7TYR

dektyr@teleport.com

Art
KB7WW

K4BYF@aol.com wrote:

>
> I am trying to locate a combination slope/level control for a Tektronix 465
> "O" scope. The TEK number is 311-1192-00. Thanks. Jack, K4BYF

Date: Sun, 5 Aug 2001 15:39:22 -0400
From: "Steve Hudson" <sdhudson@cahners.com>
To: <qrp-1@lehigh.edu>
Subject: [104279] For sale
Message-ID: <000101c11de6\$53c6b6e0\$adeceb23f@acpdceditor>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi folks -- Recent "room consolidation" to make room for daughter's fiancé turns up a number of items that need to find new homes...

Thanks --

Steve AA4BW
678 297 7999

QRP RIGS -----

80-meter QRP transceiver, Tentec 1380. This one is set up so that the 3686 local QRP net frequency is mid-range on the tuning control but can be re-aligned to cover any portion of the 80-meter CW band. Manual. Excellent condition. \$75.

20-meter CW transceiver, MFJ 9020 with "real variable capacitor tuning!" Works fine. \$75.

40-Meter QRP transmitter, Ramsey, built from the kit. With crystal for 7040, with VXO tuning, with provisions for front-panel switching another crystal. Works fine. \$10.

OTHER GEAR -----

Palomar Engineers VLF converter. Purchased years ago at hamfest and not used since. \$7.

Ramsey "440 mHz Low Noise Preamp Kit," new in unopened bag. \$5.

Heath HD-10 keyer, the old classic with the built-in paddle. Works fine. Headphone jack modified to take external paddle. \$40.

Parks Electronics Lab Model 50-1 Six-Meter Converter. 14-18 mhz IF. With crystal (36 mhz) and tubes intact. \$10.

Ramsey Electronics AR-1 Aircraft Band Receiver Kit. Built but untested. In original bag with manual. \$15.

Amateur TV downconverter. P.C. Electronics TVC-4 "ATV Downconverter, 420-450 mHz." Built-in AC supply. No manual. Bought at hamfest years ago, where it was demonstrated to work. Haven't used it since. \$10.

MFJ RTTY/CW computer interface, with documentation. \$10.

TEST EQUIPMENT -----

Palomar RX Noise Bridge. Great testing tool. Immaculate, original box, documentation. \$27.

Heathkit audio generator, tube model, in "Lunch Box" style cabinet. \$8.

Step attenuator, homebrew but not by me, marked with steps 3-6-12-18-24-30 db. In aluminum box with SO-239 mounted on each end. Seven slide switches and resistors installed, but it appears to have never been finished as there are no connections between the individual switches. \$5.

ANTENNAS AND RELATED STUFF -----

Antenna rotor. Light-duty rotor and control box, new and unused. \$20.

13-element two-meter yagi, brand new in UNOPENED box, Cushcraft 13B2 on 15 ft. boom. New price \$139.95 at HRO, sell for \$100.

Homebrew (by someone else) heavy-duty antenna tuner. Nothing QRP about this one! Components are large roller inductor, large split stator cap, large non-split stator cap. The fellow who built it used it with a "big rig." In rack-mount cabinet. \$35.

THINGS FOR HOMEBREWERS -----

Meter, Triplett, 0-50 ma DC. Meter is 2.4 in. square, mounts in 2.25 in. round hole. \$4.

Power transformer for Heath SB-201 linear, part number (I think) is 54-151. New. \$60.

Collins F250A67 mechanical filter, 526 9039 009. \$2.

Power transformer. 18v CT, 3.5 amp. \$4.

Meter. New Hickok hermetically sealed round 0-200 microamp meter, still in box. 3.5-inch face diameter, mounts in 2.75 inch hole. \$4.

Meter. Triplett, 0-200 microamps DC. 3.5x3.5 inch square face, mounts in 2.75 inch round hole. \$4.

Meter, Micronta, 0-50 microamps DC, new in box. Meter 1.75 in. square, mounts in 1.5-in. hole. \$4.

Project box, dark gray painted aluminum, 5wx4dx3h. 5x4 top plate is

removable, bottom is open but has screw holes and screws. \$4.

Power transformer. New. 12.6v 1.2 amp. \$3.

Another power transformer. New. 6.3 v 1.2 amp. \$3.

Meter. Westinghouse 0-1.5 amps DC square-face meter. 3x3 inch meter face. Mounts in 2.75 inch round hole. \$3.

Meter. Micronta 0-15 volts DC. 2.75x2.25 face, mounts in 1-inch hole. \$3.
Power transformer. New. 6.3 v 1.2 amp. \$3.

Power transformer. New. 6.3 v 1.2 amp. \$3.

Power transformer. New. 12.6 v 300 ma. \$3.

Coil stock. 2 in. diameter, 7.5 in. long, ten turns per inch. \$5.

Four-section variable cap. 1/4-inch dia shaft, D-cut on end. Appears to be about 375 per section. \$3.

All plus shipping from 30004 (Alpharetta, Ga.)

Date: Sun, 5 Aug 2001 16:22:29 -0400 (EDT)
From: Stephan Greene <sgreene@patriot.net>
To: Phil Wheeler <w7ox@earthlink.net>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104280] Re: RBA-1 Balun
Message-ID: <Pine.LNX.4.10.10108051621120.30532-1000000@tzion.greene.lan>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sun, 5 Aug 2001, Phil Wheeler wrote:

> Re the LDG baluns, here is some data:
>
> o Old design (I have one): Core is a T-130-2 (powdered iron)
> o New design (from website): Core is an FT-125 (ferrite)

Any info on color-coding for the different cores? The unit I purchased recently (July 2001) was coded half-red and half-black.

The parts list identified the core, I believe. Just need to find it!

At 5W, I am not expecting many (any) saturation problems.

72 Steve KA1LM

Stephan A. Greene sgreene@patriot.net ka1lm@amsat.org
Herndon, VA 1-703-421-7101 office 1-703-980-3475 cell

Date: Sun, 05 Aug 2001 16:24:46 -0400
From: "Bill, N4QA" <n4qa@hotmail.com>
To: qrp-1@Lehigh.EDU
Subject: [104281] Re: WWV time and conditions
Message-ID: <F73DGC19FopYC98Bi89000108d7@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Personally, I've been using the WWV (and, to a lesser extent, WWVH...fewer freqs etc) broadcasts on 2.5, 5, 10, 15, 20 and 25(extinct for many years) mHz since around age five, first using dad's ol' RME-45 receiver.

There may be more high-tech ways to obtain accurate time and frequency data etc, but I hope NIST hangs on to the VLF and HF transmissions...and, yes, I completed the survey some months ago.

While I *generally* try to keep my head in the current decade and appreciate all its wonders, I also find value in resources that may have been with us since 'way back' into the Twentieth Century or earlier.

But, hey, that's just my opinion...

73.
Bill, N4QA

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 05 Aug 2001 13:42:21 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: sgreene@patriot.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [104282] Re: RBA-1 Balun
Message-ID: <3B6DAFAD.10CD0F63@earthlink.net>

MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Stephan Greene wrote:

>
> On Sun, 5 Aug 2001, Phil Wheeler wrote:
>
> > Re the LDG baluns, here is some data:
> >
> > o Old design (I have one): Core is a T-130-2 (powdered iron)
> > o New design (from website): Core is an FT-125 (ferrite)
>
> Any info on color-coding for the different cores? The unit I purchased
> recently (July 2001) was coded half-red and half-black.
>

I don't have such info. But given the date of purchase, it should be the FT-125 of the on-line manual.

> The parts list identified the core, I believe. Just need to find it!
>
> At 5W, I am not expecting many (any) saturation problems.
>

You have a point there :-; This is qrp-l, afterall!

Since I've not yet used mine (zero watts) saturatin has not been a concern :-)

73, Phil W70X

Date: Sun, 5 Aug 2001 15:53:51 -0500 (CDT)
From: ac5ez@webtv.net (Larry)
To: qrp-l@lehigh.edu
Subject: [104283] OT FS Dipole
Message-ID: <17780-3B6DB25F-476@storefull-118.iap.bryant.webtv.net>
Content-Disposition: Inline
Content-Type: Text/Plain; Charset=US-ASCII
Content-Transfer-Encoding: 7Bit
MIME-Version: 1.0 (WebTV)

Barker & Williamson As-80 dipole FS. Has 4 traps, covers 20/40/80 bands,
#14 stranded wire, center connector with coax fitting , end insulators

included . Weighs 6 lbs. 78 feet overall length.

Lists for \$127.50 .Bought it two months ago . \$55.00 and I ship.

K1zw
Larry
Qcwa

Date: Sun, 05 Aug 2001 17:03:59 -0400
From: Pete Burbank <plburbank@kih.net>
To: qrp-1@lehigh.edu
Subject: [104284] Fwd: ARLB030 Hurricane Watch Net Activates As Barry Approaches Gulf Coast
Message-ID: <5.0.2.1.0.20010805170348.00ac1ec0@KIH.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

>Subject: ARLB030 Hurricane Watch Net Activates As Barry Approaches Gulf Coast
>To: plburbank@kih.net
>From: "ARRL Web site" <memberlist@www.arrl.org>
>Date: Sun, 05 Aug 2001 14:00:21 EDT
>CC: Subscribed ARRL Members: ;
>X-RCPT-TO: <plburbank@kih.net>
>
>SB QST @ ARL \$ARLB030
>ARLB030 Hurricane Watch Net Activates As Barry Approaches Gulf Coast
>
>ZCZC AG30
>QST de W1AW
>ARRL Bulletin 30 ARLB030
> >From ARRL Headquarters
>Newington CT August 5, 2001
>To all radio amateurs
>
>SB QST ARL ARLB030
>ARLB030 Hurricane Watch Net Activates As Barry Approaches Gulf Coast
>
>The Hurricane Watch Net activated at 1800z (2 PM Eastern Daylight
>Time) Sunday, August 5, 2001, as Tropical Storm Barry strengthened
>in the Gulf of Mexico. Barry is expected to make landfall as a
>hurricane along the Florida Panhandle Monday morning, according to
>the National Weather Service.
>
>On 14.325 MHz, the Hurricane Watch Net gathers real-time weather
>information that is relayed via National Hurricane Center station

>W4EHW to hurricane forecasters. The National Weather Service
>requested the activation as Barry, which had been drifting
>erratically in the Gulf, dramatically strengthened and turned
>northward this morning.
>
>Hurricane Warnings have been posted along the Florida Gulf Coast
>from Pascagoula, Mississippi, to the mouth of the Ochlockonee River
>in Florida. The net will accept reports from in or near the affected
>region, according to Hurricane Watch Net Manager Jerry Herman,
>N3BDW.
>NNNN
>/EX

Date: Sun, 05 Aug 2001 17:09:40 -0400
From: Pete Burbank <plburbank@kih.net>
To: K4BYF@aol.com, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [104285] Re: TEK465 Part
Message-ID: <5.0.2.1.0.20010805170537.00ac2b30@KIH.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 02:09 PM 8/5/2001 -0400, K4BYF@aol.com wrote:
>I am trying to locate a combination slope/level control for a Tektronix 465
>"0" scope. The TEK number is 311-1192-00. Thanks. Jack, K4BYF

Jack,
There is a Canadian outfit called Sphere Electronics that seems to have
lots of Tek parts at fair prices.
Let me know if you can't find their website.
73 Pete NV4V

Date: Sun, 5 Aug 2001 16:18:51 -0500
From: "Tony Parks" <robert.parks11@gte.net>
To: <qrp-1@Lehigh.EDU>
Subject: [104286] cub fox KB9YIG for 8/7/01
Message-ID: <008201c11df4\$3ab8cd60\$67d3243f@3dse0>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello Cub Fox hunters,

European Cub Fox Juanjo, EA5CHQ, will be on early August 7 to get all of you hounds running. A little later look for me, (Tony, KB9YIG), as I have my second cub fox run of the summer season. On my first outing I handed out 32 pelts and this time I hope to make 50.

The exchange at 10-13 WPM will be:

I will send: HoundCall RST IN TONY 5W HoundCall BK

Hound sends: de HoundCall RST SPC Name PWR BK

I will acknowledges with: TU (or 72) and go into QRZ KB9YIG FOX K

If I need fills I will ask: STATE? BK, etc.

I will be running my K2 at 5 watts through a 4:1 balun and ladder line to 400 feet of wire in a horizontal loop. I will be on 14.062 +/-QRM listening up 0.5 KHz and occasionally get down to my frequency. What seems to work best for me is hounds drop your call two times and wait five seconds. If you don't hear me calling anyone try again. That gives me a little time to move the RIT and pickup your call.

72 and hope to hear lots of you Tuesday evening, August 7, between 9:00-11:00 PM EST (8/8 0200-0400Z).

Tony
KB9YIG

Date: Sun, 05 Aug 2001 14:29:23 -0700
From: Dan Tayloe <dtayloe@home.com>
To: n2cqr@clix.pt, qrp-1 <qrp-1@Lehigh.EDU>
Subject: [104287] Re: 17mtr DSB: AF amp cramps
Message-ID: <3B6DBAB3.9865DC5A@home.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

>I've been trying to add more AF gain to my direct conversion EX for 17. I
>have a 100db, three transistor (2n2222a) direct coupled amp similar to the
>one from SSD. (See my web page for the schematic -- URL in the sig below.)
>This amp works very well -- it is very quiet and does not take off on me.
>I have a grounded gate RF amp (about 10 db) ahead of the mixer. I think
>there is about 8 db of loss in the mixer.

>

>I know the RX would work better with more AF gain. When I plug a little
>amplified computer speaker in the AF out from the 100 db amp, I can turn
>the RF gain very low and the whole system seems to work better.

>I tried adding an MPF102 amp stage ahead of the 100 db amp. It added far
>too much noise. Then I tried an additional 2n2222a stage AFTER the 100 db
>amp. Again, way too noisy. Today I built a 40 db amp out of the ARRL data
>book. Again, too much noise.

>

>What am I doing wrong here?

Let me take a wild stab at this. $10\text{ db} - 8\text{ db} + 100\text{ db} = 102\text{ db}$ total receiver gain. The rule of thumb that has worked for me is 90 to 100 db of gain for headphone use and an extra 20 db of gain for speaker use. As I think about this, my final audio stage was always capable of driving 8 ohm headphones directly. However, I think you mentioned that you have an audio transformer in the last stage to match the high impedance audio chain output to 8 ohms.

If the transformer were 1K:8 ohms, the voltage reduction to get from 1K to 8 ohms would be: $\text{Sqrt}(1000/8)$ or 11x. Call this about a 20 db reduction in receiver gain compared to having an 8 ohm output in the first place. Effectively, input to 8 ohm output, the receiver has about 80 db of gain, which is a bit short. I can see why you want a bit more.

Also figuring into this is the efficiency of your headphones. Most cheap headphones yield 98 db/mW of audio (I don't remember the true sound pressure units off hand), but I have seen as poor as 88 db/mW. The best I have seen is a pair of Koss "in the ear" types at 112 db/mW. Most medium range headphones are in the 102 to 106 db/mW range. Best to worst is 24 db, which is a whale of a lot of difference in perceived audio output!

Assuming you have decent headphones, and about 80 db of receiver gain, let me make an estimate on the level of "hiss" you might expect to hear. Let me make a wild guess that your receiver is in the 4 nV/SqrtHz noise range. From a previous thread, that is about a 13 db noise figure. Given the noise of the preamp, the loss of the mixer, and the input noise of the audio chain, this purely a guess. I am not sure if you have much in the way of audio filtering, so assume that the receiver has 5 KHz of bandwidth, the total noise referenced to the input is $4\text{ nV/SqrtHz} \times \text{Sqrt}(5000\text{ Hz})$ or 283 nV of noise. With 80 db of gain to an 8 ohm output, that becomes: $10000 \times 283\text{ nV} = 2.8\text{ mV}$ of noise.

Now 2.8 mV of noise ought to be audible in your headphones. I think a strong signal is on the order of 0.1v or less into a pair of headphones. Now take that 2.8 mV of noise and add another 40 db of

audio gain to it. It is now 100×2.8 mV or 280 mV. That ought to blast your headphones right off!

The problem as I see it might not be one of too much gain, but rather one of gain distribution in the receiver.

Not knowing much about your receiver other than the 100 db of gain is a single block (a three stage direct coupled amplifier), let me assume you have a volume control between the diode mixer output and the input to this amplifier. That means that the audio gain stage is running "wide open" to the headphones. However, the noise, even running wide open is not bad.

Now add another 40 db of audio gain. If that gain is added on the headphone side of the volume control, you now will have $40 + 100 - 20$ (transformer conversion loss to 8 ohms) or 120 db of gain running wide open to the headphones. Even with the volume gain turned all the way down, the noise naturally generated in the first audio stage will get amplified by 120 db and sent into your headphones. The resulting noise will likely be intolerable.

A better arrangement would be to have the mixer feed a 20 db audio stage (you could test the concept with the 40 db stage you have already built), and then follow that audio stage with the volume control, then go into the 100 db audio amplifier stage. With the volume control turned all the way down, it should be as quiet as before, 2.8 mV or so noise to the headphones. As you turn up the volume, the signal will come up along with the noise and the situation should be much better.

One of the trick is to managing hiss is to limit the gain between the headphones and the volume control. This is another design trade off. Too much gain on the antenna side, and the audio stage can saturate with large signals before getting reduced by the volume control. Too much gain on the headphone side creates a lot of hiss, which is likely the problem you are experiencing.

On 18 MHz, you will likely want to use the RF preamplifier to improve the sensitivity. If the selectivity is not good enough, one thing you might try is to make the input a double tuned filter, rather than the single tuned one you have now. That ought to help somewhat with the out-of-band shortwave stations and may be better than simply reducing the RF gain of the preamp.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Date: Sun, 05 Aug 2001 18:04:37 -0400

From: Ray Sills <raysills@1stconnect.com>
To: QRP list <qrp-l@Lehigh.EDU>
Subject: [104288] WWW survey
Message-ID: <B7933B35.7D56%raysills@1stConnect.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Here's a better link:

<http://www.boulder.nist.gov/timefreq/index.html>

73 de Ray
K2ULR
FN20t1

Date: Sun, 05 Aug 2001 15:57:55 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: elecrafft@qth.net, qrp-l@Lehigh.EDU
Subject: [104289] re: Summer Daze QRP...
Message-ID: <F25EYnkZvLQET7ffSsn0000a895@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

14.285Mhz fairly active w/ SSB qrp now (2250Z)...nice to work KH7T!

...others in the 20m log: N9NE, W0VX, KA0PGQ, AA5UN, WD0CJZ, KG4CHX, K5PD,
K8DNP...WA9TZE booming in, but can't get his attention... :(

Heard no qrp ssb activity on 15 or 10 meters.

73 John K7FD K2/586/SM20 mic, 3e1 Cubex Quad @ 60'

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

End of QRP-L Digest 2272
